

Derrick Michael Reid, Esq.

PATENT 4-12-01

The Aerospace Corporation

PO Box 92957 M1/040

Docket No. D-387

Los Angeles Ca 90009-2957

2
JC913 U.S. PTO
09/696525
10/23/00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant - Lui et al.) Information Disclosure

) Statement

Title - Data Aided Symbol) Los Angeles, California

Timing Tracking) Date: 10/19/00

System for Precoded) Commissioner of Patents

Continuous Phase) and Trademarks

Modulated Signals) Washington, DC, 20231

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Applicant hereby discloses information believed relevant to the examination of the present application as follows.

Reference 1

Huber J., Liu W. "Data Aided Synchronization of Coherent CPM Receivers", IEEE Transactions on Communications, Vol. 40 pp 178-198, January, 1992.

Huber teaches data aided synchronization of CPM signals. Huber does not disclose data precoding. Huber does not teach using the principal Laurent decomposition for generating symbol timing signal nor carrier phase error signals.

Reference 2,

D'Andrea A.N., Mengali U., Morelli M. "Symbol Timing Estimation with CPM Modulation", IEEE Transaction on Communications, Vol. 44, No. 10 October 1996.

D'Andrea teaches a full response non-data aided symbol timing synchronization. D'Andrea does not teach data aid synchronization. D'Andrea does not address carrier phase error synchronization. D'Andrea is not applicable to partial response CPM signal such as $B_t=1/5$ GMSK system.

REMARKS

The cited references to not teach data bit precoding suitable for subsequence Laurent component isolation for determining symbol timing error and carrier phase error in data aided synchronizers.

Respectfully Submitted

Derrick Michael Reid

Derrick Michael Reid